

REPORT ON MACHINERY.

No. 16249
3220

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Date of writing Report 15 April 1919 When handed in at Local Office 15 April 1919 Port of New York & Philadelphia
No. in Survey held at Philadelphia Reg. Book. Date, First Survey 18 Sept 1918 Last Survey 24 April 1919
on the STEEL SCREW STEAMER "SAHALE" (Number of Voids 48)

Master George H. Ireland Built at Philadelphia Pa By whom built American International Corp When built 1919
Engines made at Schenectady N.Y. By whom made General Electric Company when made 1918
Boilers made at Bayonne N.J. By whom made Babcock & Wilcox Co (MB 563) when made 1918
Registered Horse Power 600 Owners Emergency Fuel Corporation Port belonging to Philadelphia Pa
Shaft Horse Power at Full Power 2500 Is Refrigerating Machinery fitted for cargo purposes No. Is Electric Light fitted Yes.

TURBINE ENGINES, &c.—Description of Engines Grand turbine Turbine 13523. No. of Turbines One.
Diameter of Rotor Shaft Journals, H.P. 8" L.P. 7" Diameter of Pinion Shaft 7"
Diameter of Journals "6.10" Distance between Centres of Bearings "9.28" Diameter of Pitch Circle "6.87.888"
Diameter of Wheel Shaft 14" Distance between Centres of Bearings "6.54.058" Diameter of Pitch Circle of Wheel "6.54.058"
Width of Face 20.44" Diameter of Thrust Shaft under Collars 13.25" Diameter of Tunnel Shaft as per rule 12.45"
No. of Screw Shafts 2 Diameter of same as per rule 14" as fitted 14.5" Diameter of Propeller 17'0" Pitch of Propeller 13'9"
No. of Blades 4 State whether Moveable No Total Surface 78.8 sq ft Diameter of Rotor Drum, H.P. L.P. Astern
Thickness at Bottom of Groove, H.P. L.P. Astern Revs. per Minute at Full Power, Turbine 3224 Propeller 90.

PARTICULARS OF BLADING.

	ACTIVE. H.P.			L.P.			ASTERN.		
	HEIGHT OF BLADES.	DIAMETER AT TIP.	NO. OF ROWS.	HEIGHT OF BLADES.	DIAMETER AT TIP.	NO. OF ROWS.	HEIGHT OF BLADES.	DIAMETER AT TIP.	NO. OF ROWS.
1ST EXPANSION	7.5-12.5	2'-11"	2				8.25-1.5	3'-3"	2
2ND	6.25	3'-7"	1				3.275	3'-3"	1
3RD	12.5	3'-10.5"	1						
4TH	2.5	4'-0"	1						
5TH	6	4'-2"	1						
6TH									
7TH									
8TH									

No. and size of Feed pumps Two. 10" x 6" x 24"
No. and size of Bilge pumps Two. 12" x 8 1/2" x 12" and 10" x 12" x 12"
No. and size of Bilge suction in Engine Room Two 3 1/2" dia. Sprinkler Recess. One 3 1/2" dia. Fire Room Two 3 1/2" dia.
In Holds, &c. No. 1 Two 3 1/2" dia. No. 2 Two 3 1/2" dia.
No. of Bilge Injections One. sizes 10" dia. Connected to condenser, or to circulating pump pump Is a separate Donkey Suction fitted in Engine Room & size 3 1/2" dia.
Are all the bilge suction pipes fitted with roses Yes. Are the roses in Engine room always accessible Yes
Are all connections with the sea direct on the skin of the ship Yes. Are they Valves or Cocks Lath
Are they fixed sufficiently high on the ship's side to be seen without lifting the stokehold plates Yes. Are the Discharge Pipes above or below the deep water line Below
Are they each fitted with a Discharge Valve always accessible on the plating of the vessel Yes. Are the Blow Off Cocks fitted with a spigot and brass covering plate Yes
What pipes are carried through the bunkers None. How are they protected
Are all Pipes, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times Yes
Are the Bilge Suction Pipes, Cocks, and Valves arranged so as to prevent any communication between the sea and the bilges Yes
Is the Screw Shaft Tunnel watertight Yes Is it fitted with a watertight door Yes worked from Upper platform Eng Room

OILERS, &c.—(Letter for record S) Manufacturers of Steel.

Total Heating Surface of Boilers 8776. Is Forced Draft fitted Yes No. and Description of Boilers 3 Water Tube Boilers.
Working Pressure 200 lbs. Tested by hydraulic pressure to Date of test No. of Certificate
Can each boiler be worked separately Area of fire grate in each boiler No. and Description of Safety Valves to
Each boiler Area of each valve Pressure to which they are adjusted Are they fitted with easing gear
Smallest distance between boilers or uptakes and bunkers or woodwork Mean dia. of boilers Length Material of shell plates
Thickness Range of tensile strength Are the shell plates welded or flanged Descrip. of riveting: cir. seams
Ing. seams Diameter of rivet holes in long. seams Pitch of rivets Lap of plates or width of butt straps
Percentage of strength of longitudinal joint Working pressure of shell by rules Size of manhole in shell
Length of compensating ring No. and Description of Furnaces in each Boiler Material Outside diameter
Length of plain part Thickness of plates crown bottom Description of longitudinal joint No. of strengthening rings
Working pressure of furnace by the rules Combustion chamber plates: Material Thickness: Sides Back Top Bottom
Pitch of stays to ditto: Sides Back Top If stays are fitted with nuts or riveted heads Working pressure by rules
Material of stays Diameter at smallest part Area supported by each stay Working pressure by rules End plates in steam space
Material Thickness Pitch of stays How are stays secured Working pressure by rules Material of stays
Diameter at smallest part Area supported by each stay Working pressure by rules Material of Front plates at bottom
Thickness Material of Lower back plate Thickness Greatest pitch of stays Working pressure of plate by rules
Diameter of tubes Pitch of tubes Material of tube plates Thickness: Front Back Mean pitch of stays
Pitch across wide water spaces Working pressures by rules Girders to Chamber tops: Material Depth and
Thickness of girder at centre Length as per rule Distance apart Number and pitch of stays in each
Working pressure by rules Steam dome: description of joint to shell % of strength of joint Diameter
Thickness of shell plates Material Description of longitudinal joint Diameter of rivet holes Pitch of rivets
Working pressure of shell by rules Crown plates: Thickness How stayed

